REMARKS

IDS

The Examiner's comments are noted.

SPECIFICATION

Applicants note that the Examiner objects to the disclosure of the specification because of the following alleged formalities: "the particles of zinc oxide, polyethylene wax emulsion, and the structure of the packaging" as being not discussed within the description of the invention.

These comments are not understood and in this regard, Applicants respectfully direct the Examiner's attention to the specification specifically, example 1, when the component "Zinc Oxide Solution****" is described as "actually a dispersion of zinc oxide particles in an aqueous vehicle". The polyethylene wax emulsion is also described in example 1 as component "Jonwax 28*** described in the foot of the example as a "polyethylene wax emulsion".

As to the "structure of the packaging", the Examiner's attention is respectfully directed to the paragraph bridging pages 5-6 of the specification discussing packaging "especially for packaging electronic parts" and formed of a laminated construction. Applicants also direct the Examiner's attention to page 3, last 7 lines, which teaches "when used in a lamination construction, a conductive or static dissipative material in the present invention should preferably to be used as the outer layer, i.e., on one or both sides of the film. Between the outer layers of the film, additional laminae may include a metallicized or non-metallicized surface and one or more layers of plastic film, fabric, non-woven material or paper.

Thus, Applicants respectfully submit that the materials identified by the Examiner are adequately and fully described within the disclosure of the specification and Applicants do not understand the Examiner's comments relating to these features of the invention. Withdrawal of the objection of the disclosure is therefore respectfully requested.

35 USC §112

By the foregoing Amendment, Applicant has rewritten independent Claim 10 to redefine the Markush group as being "at least one material selected from the group consisting of paper, fabric and non-woven material". Applicant believes that the Markush group, as previously recited, made it clear that there could be a combination of paper with fabric and /or with non-woven material. The recitation of "at least one material" still includes these combinations while responding to the Examiner's perceived allegedly indefinite recitation of "and combinations thereof".

However, with regard to independent Claim 1, the Examiner's definition of "film" as being a "thin skin or membrane" and "cannot be considered a film unless attached to a substrate" is not the definition understood by those of ordinary skill in the art to which the invention pertains. Specifically, a material can be a "self-sustaining film" and not be indefinite since that term is well known in the art (see for example, Kirk-Othmer Encyclopedia of Chemical Technology, Third Edition, Volume 18, pages 191-2 (1982) in which various films are discussed, such as blown films used for food and trash bags, color extruded films made of two or more layers of different polymers and cast films which import better optical properties to the film provided as Attachment II). None of these films are attached to a substrate as alleged must be

required by the Examiner. Accordingly, the Examiner's understanding of and definition of films is clearly not commensurate in knowledge of those skilled in the art. The rejection of Claim 1 under 35 USC §112 is inappropriate and should be withdrawn.

35 USC §102

Reconsideration of the previous rejection of Claims 1-3 under 35 USC §102(b) as being anticipated by Felter et al. (US Patent No. 4,895,886) is respectfully requested.

In order to act as an anticipatory reference, Felter must teach each and every limitation recited in the claim. Felter clearly fails to do so. Although Felter teaches a surface dissipitative coating composition which can be coated on a vinyl surface, it does not teach the limitations of the claimed invention, i.e., it does not teach a "self-sustaining film" comprising an acrylic resin base containing a quaternary ammonium compound as clearly recited in independent Claim 1. Accordingly, Felter cannot possibly act as an anticipatory reference.

Claim 9 has been cancelled, thus its rejection is moot.

35 USC §103

Reconsideration of the previous rejection of Claim 4 under 35 USC §103(a) as being unpatentable over Felter in view of Shaw (US Patent 4,379,822) is respectfully requested in view of the following comments.

Although the Examiner alleges that Felter teaches a dissipative film comprising a composition including an acrylic resin base containing a quaternary ammonium compound in the amount of about 1 to about 10 wt.%, Felter does not contain such a teaching.

As noted above in discussing the teachings of Felter, Felter does not teach the formation of a "self-sustaining film" as recited in Claim 4. Moreover, there is no teaching in Felter of the

presence of 1 to about 10 wt.% of quaternary ammonium compound. In this regard, the Examiner's attention is directed to the discussion of Felter in the following discussion of the deficiencies of Felter as applied to Claims 5-7 below.

As the teaching of the secondary reference, Shaw is only to incorporate a polyethylene wax emulsion and does not correct the foregoing deficiencies of Felter, the combination of references cannot establish a prima facia case of obviousness for the claimed invention. Accordingly, withdrawal of the rejection is respectfully requested.

Reconsideration of the previous rejection of Claims 5-7 under 35 USC §103(a) as being unpatentable over Arudi et al. (US Patent No. 5,597,675) in view of Felter is respectfully requested.

As the Examiner recognizes, Arudi fails to teach a conductive polymeric composition containing a quaternary ammonium compound in the amount of 1 to about 10 wt. % based on the resin and the fact that the resin further contains a dispersion of zinc oxide particles. Although the Examiner alleges that Felter teaches that quaternary ammonium compound is about 1 to about 10 wt. % for the composition to work most efficiently for electrical conductivity (citing column 3, lines 3-31), Felter does not contain such a teaching. Rather, Felter teaches "the composition of the invention to work most efficiently for electrical conductivity, it is usually necessary to maintain the combination of antistatic agents at 15-25% by weight. along with from 3-6% fumed silica". Felter continues on for static dissipation. The combination of antistatic agents should be 5-15% by weight.

col.3. vs. col.1 solver issue

There is clearly no teaching in Felter of using 1-10 wt.% of a quaternary ammonium compound as claimed in each of Claims 5-7.

For the foregoing reasons, Felter cannot be employed to correct the acknowledged deficiencies of Arudi and therefore the combination of references does not establish a prima facia case of obviousness for the claimed invention.

Accordingly, withdrawal of the rejection is respectfully requested.

Reconsideration of the rejection of Claim 8 under 35 USC §103(a) as being unpatentable over Arudi in view of Felter as applied to Claim 5 above and further in view of Shaw is respectfully requested.

As noted above, Felter does not correctly acknowledge the deficiencies of Arudi as applied to Claim 5. Thus, as Claim 8 includes all the limitations of Claim 5, rejection still does not establish a prima facia case of obviousness even when Shaw is combined with Felter and Arudi. Accordingly, withdrawal of the rejection is respectfully requested.

Reconsideration of the previous rejection of Claims 10-13 under 35 USC §103(a) as being unpatentable over Hamuro et al. (US Patent No. 4,846,345) in view of Felter is respectfully requested. As with the previous rejections, independent Claim 10 specifically requires about 1 to about 10 wt.% of a quaternary ammonium compound which is nowhere taught in Hamuro and is not corrected by Felter which fails to contain a teaching of such ammonium compound in the recited range. Rejection therefore fails to establish a prima facia case of obviousness. Withdrawal of the rejection is respectfully requested.

Reconsideration and withdrawal of the rejection of Claim 14 under 35 USC §103(a) as being unpatentable over Hamuro in view of Felter as applied to Claim 12 above and further in view of Shaw is respectfully requested.

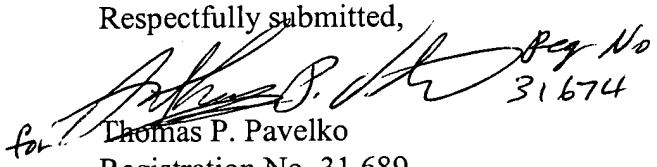
As noted above, a combination of Hamuro and Felter does not establish a prima facia

case of obviousness as to Claim 10. Because Claim 14 contains all the limitations of Claim 12 and a combination of Shaw does not correct the foregoing deficiencies of Hamuro in view of Felter. The rejection still fails to establish a prima facia case of obviousness for the claimed invention. Accordingly, withdrawal of all rejections and passage of the application to issue are respectfully requested.

CONCLUSION

Having fully responded to the preceding Office Action, further reconsideration over all rejections and passage of the application to issue are respectfully requested.

Respectfully submitted,



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ATTACHMENT I - Marked-up Claim

10. (Amended) A package comprising a layer of a conductive polymeric composition comprising a composition including an acrylic resin base containing a quaternary ammonium compound in an amount of about 1 to about 10 wt.% based on the weight of the composition to impart a static dissipative property and a conductive property to said polymeric composition, in combination with [a] <u>at least one</u> material selected from the group consisting of paper, fabric[,] and non-woven material [and combinations thereof].

ATTACHMENT II - Kirk-Othmer Encyclopedia of Chemical Technology

KIRK-OTHMER

ENCYCLOPEDIA OF CHEMICAL TECHNOLOGY

THIRD EDITION

VOLUME 18

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TO
POTASSIUM COMPOUNDS

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Jacket D

of thick-walled products. Die openings are large and resistance to flow is small. Cooling of the pipe is slow because plastics are poor conductors of heat (10). Long quench tanks and good circulation of water are needed. Low melt temperatures characterize pipe extrusion. Large die openings permit the use of viscous, high molecular weight resins, which yield tougher products. Coextruded foam-core pipe is described in ref. 11.

Blown Film. Blown film is a plastic film that is extruded as a tube. Most blown film is made from polyethylene and is used for food and trash bags. A sketch of essential equipment is shown in Figure 9. Melt is extruded in an upward direction through a circular die opening. The tube of molten resin is filled with air, which expands the tube to the desired size. The film is cooled by blowing a stream of air upward over the outside of the tube. The tube is flattened and pulled by a pair of rolls a few meters above the die. Between the die and rolls, the tube is extruded over an isolated bubble of air, which is sealed by a valve below the die and by the pinch rolls above. The amount of air determines the diameter of the tube and the width of the collapsed, ie, flat, tubular film.

The tube is characterized by blowup, ie, a larger diameter than the die opening. The amount of blowup is expressed as the ratio of tube diameter to die diameter. Blow-up ratios usually are ca 2/1–4/1. The melt also is drawn-down of the melt from the die. Die openings are slits with gaps of ca 0.65 mm. Film thicknesses are 0.007–0.125 mm. The process requires a high melt-viscosity resin so that the melt can be pulled from the die in an upward direction. Since only air is used for cooling, removal of heat tends to be slow and rate-limiting. A low melt temperature limits the amount of cooling required and imparts high melt viscosity. Techniques that are used to improve the

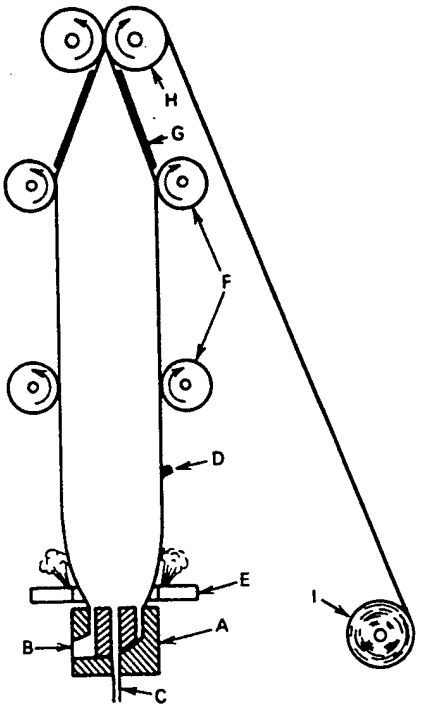

Figure 9. Extrusion of blown film (4). A, blown-film die. B, die inlet. C, air hole and valve. D, plastic tube (bubble). E, air ring for cooling. F, guide rolls. G, collapsing frame. H, pull rolls. I, windup roll. Courtesy of Society of Plastics Engineers.

efficiency of the air-cooling process are described in refs. 12–14. The film may be treated for subsequent printing, and it can be slit into various widths and wound onto separate cores.

Coextruded films consist of two or more layers of different polymers. They are characterized by the beneficial properties of the various resins without the deficiencies of a film made from a single resin. If fed by two or more extruders, a modified blown-film die can be used to make coextruded film (see Film and sheeting materials).

Cast Film. The cast-film process provides a film with gloss and sparkle and can be used with various resins; Figure 10 is an illustration of the essential features of the extrusion equipment. The die opening is a long straight slit with an adjustable gap ca 0.4 mm wide. The die is positioned very carefully with respect to the casting roll and a molten web of resin is drawn from the die onto the roll for controlled cooling. The casting roll or chill roll is highly polished and plated and imparts an extremely smooth and flawless surface to the film. The roll is cooled by rapid circulation of water. Temperature control is critical. A die somewhat longer than the width of the film is needed, because the molten web becomes narrow as it is drawn from the die; this is called neck-in. Edges of the film thicken and are mechanically removed before the film is wound on a roll. The edge trim can be reprocessed.

One of the requirements of the process is that the melt maintain good contact with the chill roll, ie, air must not pass between the film and the roll. Otherwise, air insulates the plastic and causes it to cool at a different rate than the rest of the plastic and spoils the appearance of an otherwise satisfactory product. The melt should not emit volatiles, which condense on the chill roll, reduce heat transfer, and mar the film appearance. The cast-film process allows the use of a higher melt temperature than is characteristic of the blown-film process. The higher temperature imparts better optical properties. Orientation effects in flat film have been studied (15).

Sheet. The process used to make an extruded plastic sheet is illustrated in Figure 11. Sheeting thicknesses are 0.25–5 mm and widths are as great as 3 m. Usually sheets are cut to a specified length and are stacked. Cooling is controlled by a three-roll stack. The rolls are 25–40 cm in diameter, highly polished, and chrome-plated. They are cored for cooling with circulating water, and the temperature of each roll is controlled by a circulator and temperature control unit. Often the rolls are operated at high temperature to maximize the gloss of the sheeting surface.

A web of molten plastic is pulled from the die into the nip between the top and

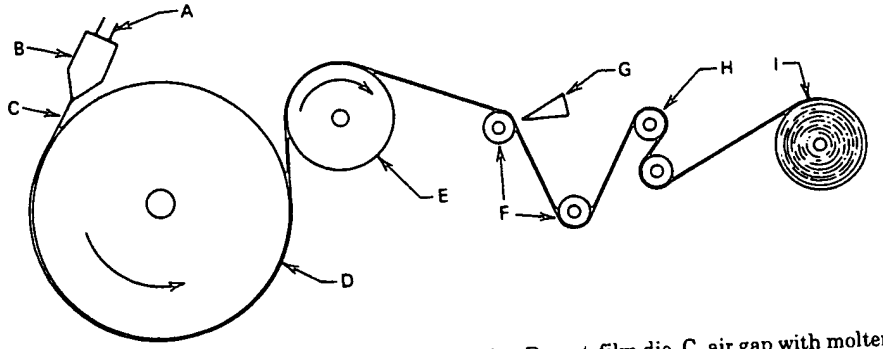

Figure 10. Extrusion of roll-cast film (4). A, die inlet. B, cast-film die. C, air gap with molten web. D, casting roll. E, stripping roll. F, idler roll. G, edge-trim slitter. H, pull rolls. I, windup roll. Courtesy of Society of Plastics Engineers.

quaternary ammonium compound

quaternary ammonium compound *noun*
Any of a group of compounds in which a central nitrogen atom is joined to four organic radicals and one acid radical, used as antiseptics, solvents, and emulsifying agents.

428/34.2, 34.3, 35.8, 35.9, 36.1, 36.92, 511, 537.5